

WHAT IS CLAIMED IS:

1. A flip-chip package, comprising at least:
 - a chip having an active surface and bonding pads thereon, wherein the bonding pads are disposed on the active surface;
 - a substrate having a carrying surface and bump pads thereon, wherein the bump pads are disposed on the carrying surface opposite to the bonding pads;
 - a plurality of supporters disposed between the chip and the carrying surface and distributed at a periphery of the active surface; and
 - a plurality of electrically conductive adhesive bumps, each connecting a bonding pad and a corresponding bump pad and having a smaller diameter at a central portion thereof than at end portions thereof.
2. The flip-chip package of claim 1, wherein the supporters comprise gold bumps.
3. The flip-chip package of claim 1, wherein each electrically conductive adhesive bump comprises a polymeric material doped with a plurality of electrically conductive particles.
4. The flip-chip package of claim 3, wherein the electrically conductive particles comprise silver (Ag).
5. A flip-chip packaging process, comprising at least the steps of:
 - providing a chip and a substrate, wherein the chip has an active surface with bonding pads disposed thereon, and the substrate has a carrying surface with bump pads disposed thereon, wherein locations of the bump pads correspond to locations of the bonding pads;

disposing a plurality of supporters at a periphery of the active surface, and forming an uncured electrically conductive adhesive bump on each bump pad;

situating the chip over the carrying surface to contact the carrying surface via the supporters;

pressing the chip toward the substrate to decrease the distance between the active surface and the carrying surface, so as to cause elastic strain in the supporters and increase a contact area between each pair of electrically conductive adhesive bump and bonding pad;

stopping pressing the chip; and

curing the electrically conductive adhesive bumps.

6. The flip-chip packaging process of claim 5, wherein disposing the supporters comprises disposing a plurality of gold bumps.

7. The flip-chip packaging process of claim 6, wherein disposing the gold bumps comprises:

forming the gold bumps from a plurality of gold wires with a wire bonding method; and

pulling the gold wires apart from the gold bumps.

8. The flip-chip packaging process of claim 5, wherein each electrically conductive adhesive bump comprises a polymeric material doped with a plurality of electrically conductive particles.

9. The flip-chip packaging process of claim 8, wherein the electrically conductive particles comprise silver (Ag).

10. The flip-chip packaging process of claim 5, wherein the electrically conductive adhesive bumps are formed on the bump pads with a screen printing method.